

APR 24 2003
O I P E JCS
P A T E N T & T R A D E M A R K O F F I C E

PATENT
Docket No. 252312006103

CERTIFICATE OF MAILING BY "EXPRESS MAIL"

Express Mail Label No.: EV232305976US

Date of Deposit: April 24, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Michael Boyd

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Edward J. VICTORIA, et al.

Serial No.: 10/044,844

Filing Date: January 10, 2002

For: APL IMMUNOREACTIVE PEPTIDES,
CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL
ANTIBODY-MEDIATED
PATHOLOGIES

Examiner: To Be Assigned

Group Art Unit: 1641

SUBMISSION OF FORMAL DRAWINGS

Box Missing Parts
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed are 32 sheet(s) of formal drawings in connection with the above-identified application.

Respectfully submitted,

Dated: April 24, 2003

By:

Kimberly A. Bolin
Registration No. 44,546

Morrison & Foerster LLP
755 Page Mill Road
Palo Alto, California 94304-1018
Telephone: (650) 813-5740
Facsimile: (650) 494-0792



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 1 of 32

1/32

ACA Activity Effect of Serum vs Fish Gelatin

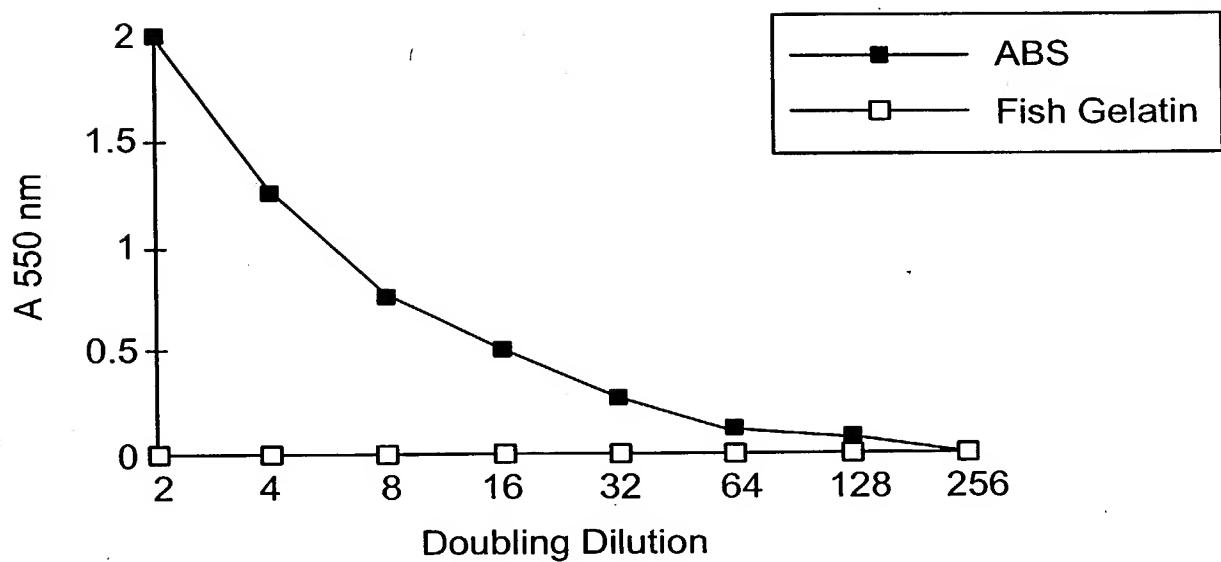


FIG. 1

O I P E
APR 24 2003
PATENT & TRADEMARK OFFICE
Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 2 of 32

2/32

Immunoreactivity of ACA 6501-5A12 Peptide

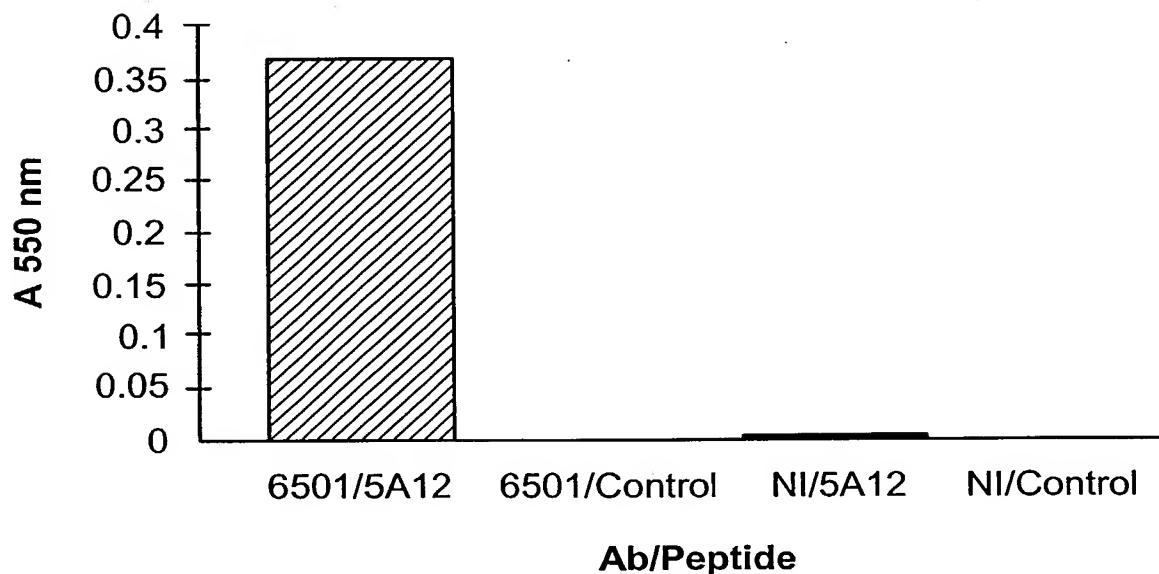


FIG. 2

O P E
APR 24 2003
PATENT & TRADEMARK OFFICE

Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES

Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 3 of 32

3/32

Immunoreactivity of ACA-6626 with Solid Phase Peptides

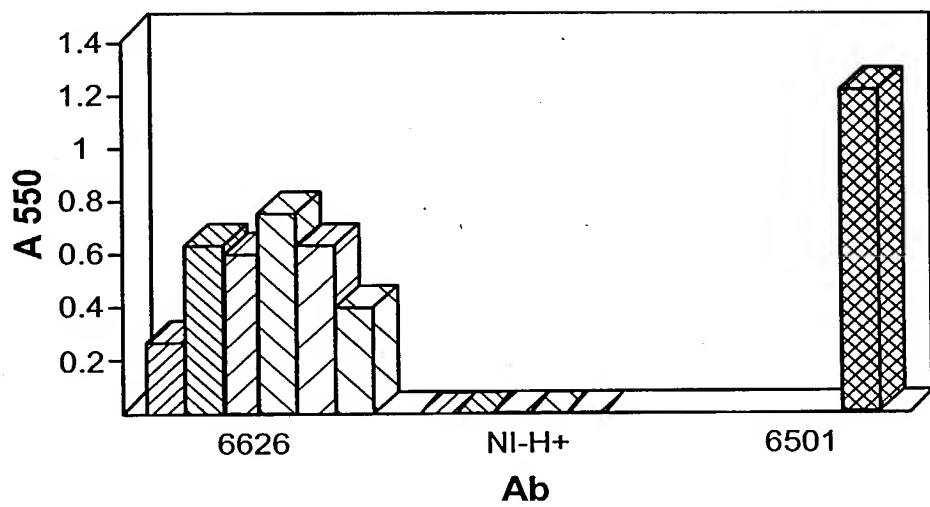
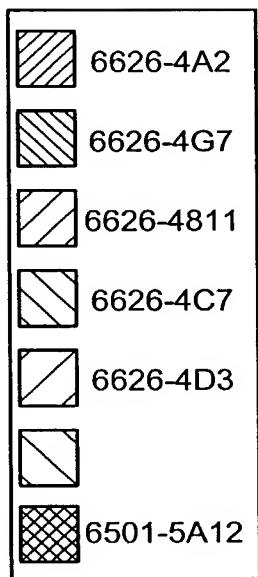


FIG. 3



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 4 of 32

4/32

Serum Crossreactivity of ACA 6501-5A12 Peptide

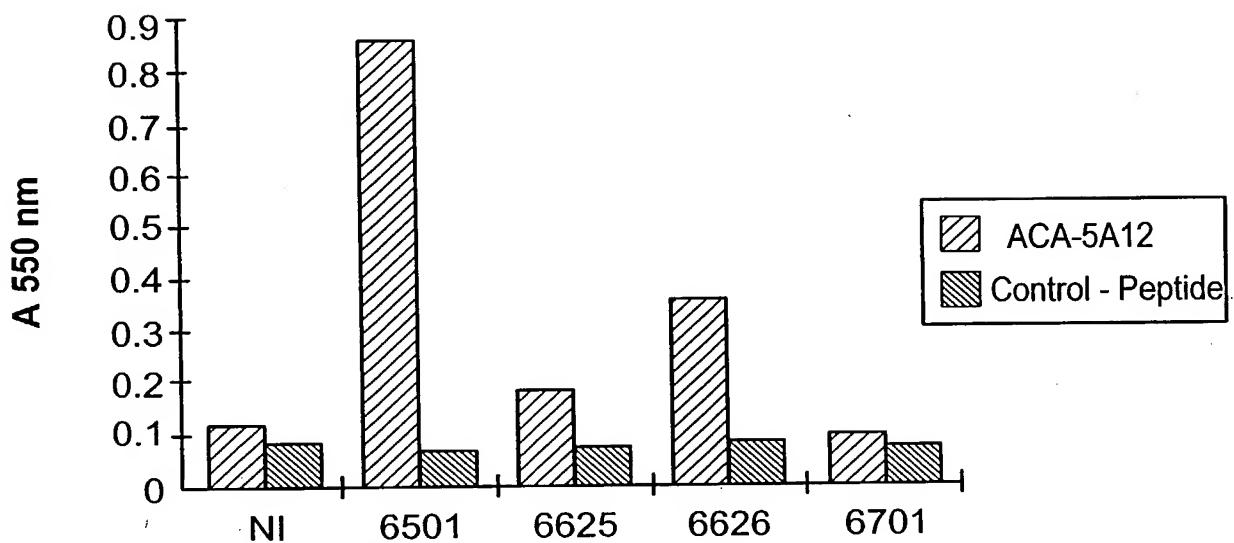


FIG. 4



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 5 of 32

5/32

Serum Crossreactivity of ACA 6626-4D3 Peptide

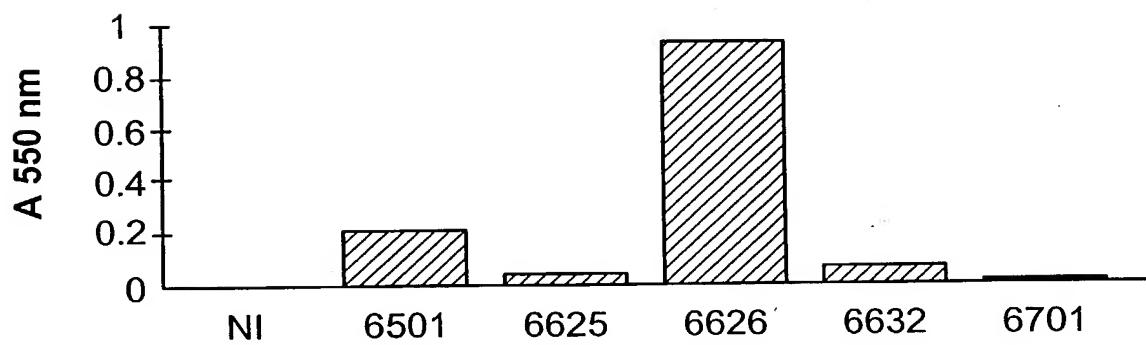


FIG. 5



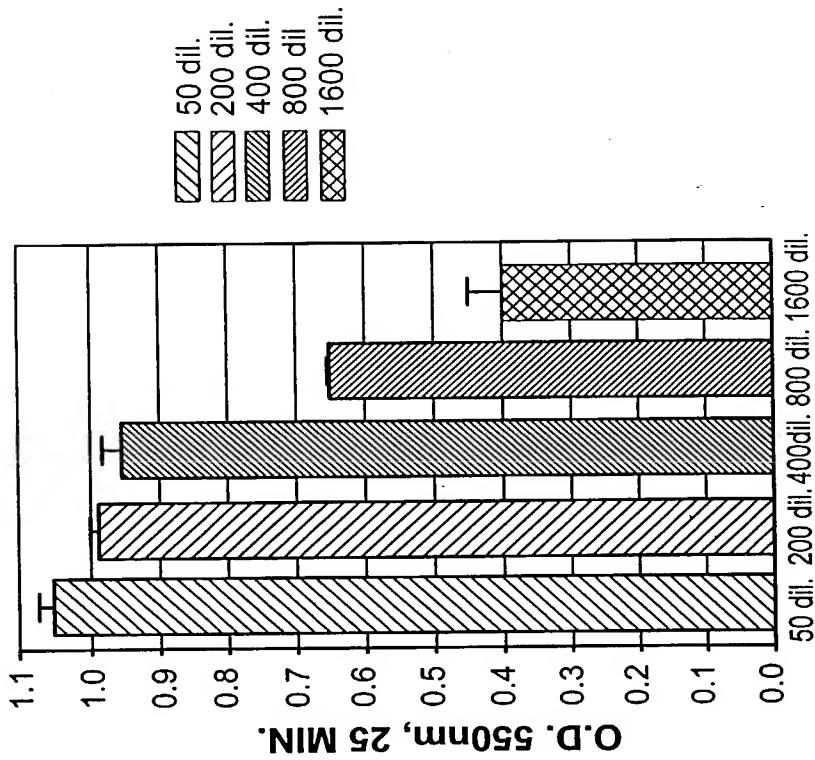
Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES

Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 6 of 32

6/32

ACA ELISA of Serum 6501



CALCULATION FOR GPL UNITS IN SERUM
6501: 1600dil./50 dil. x 70 GPL = 2240 GPL

O.D. 550 nm vs. Std. GPL UNITS

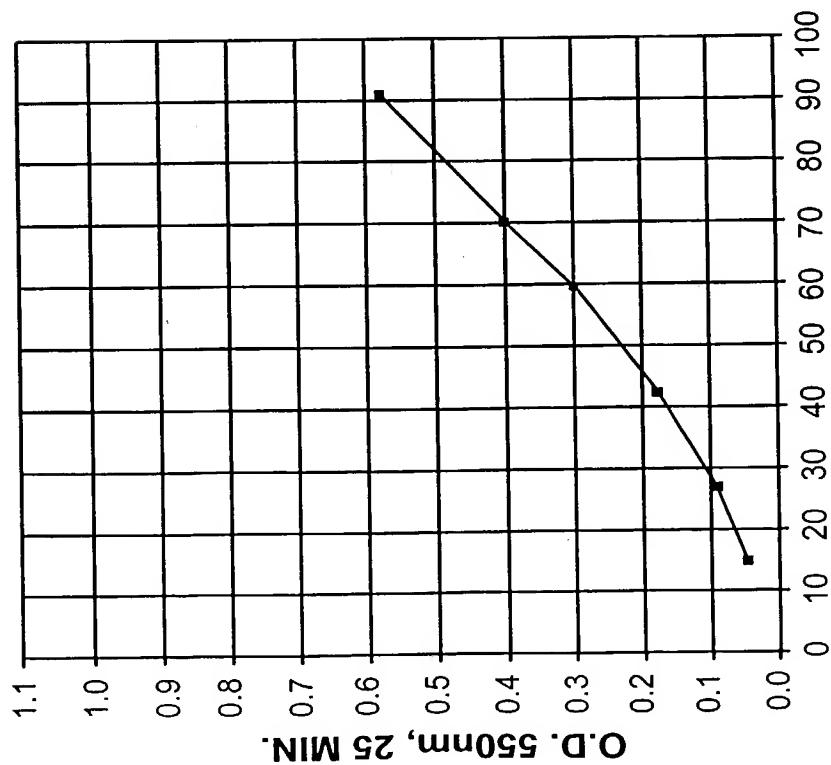


FIG. 6A

FIG. 6B



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
 Inventor: Edward J. VICTORIA, et al.
 Application No.: 10/044,844
 Docket No.: 252312006103

Sheet 7 of 32

7/32

ACA ELISA of Purified Ab fr. Serum 6501

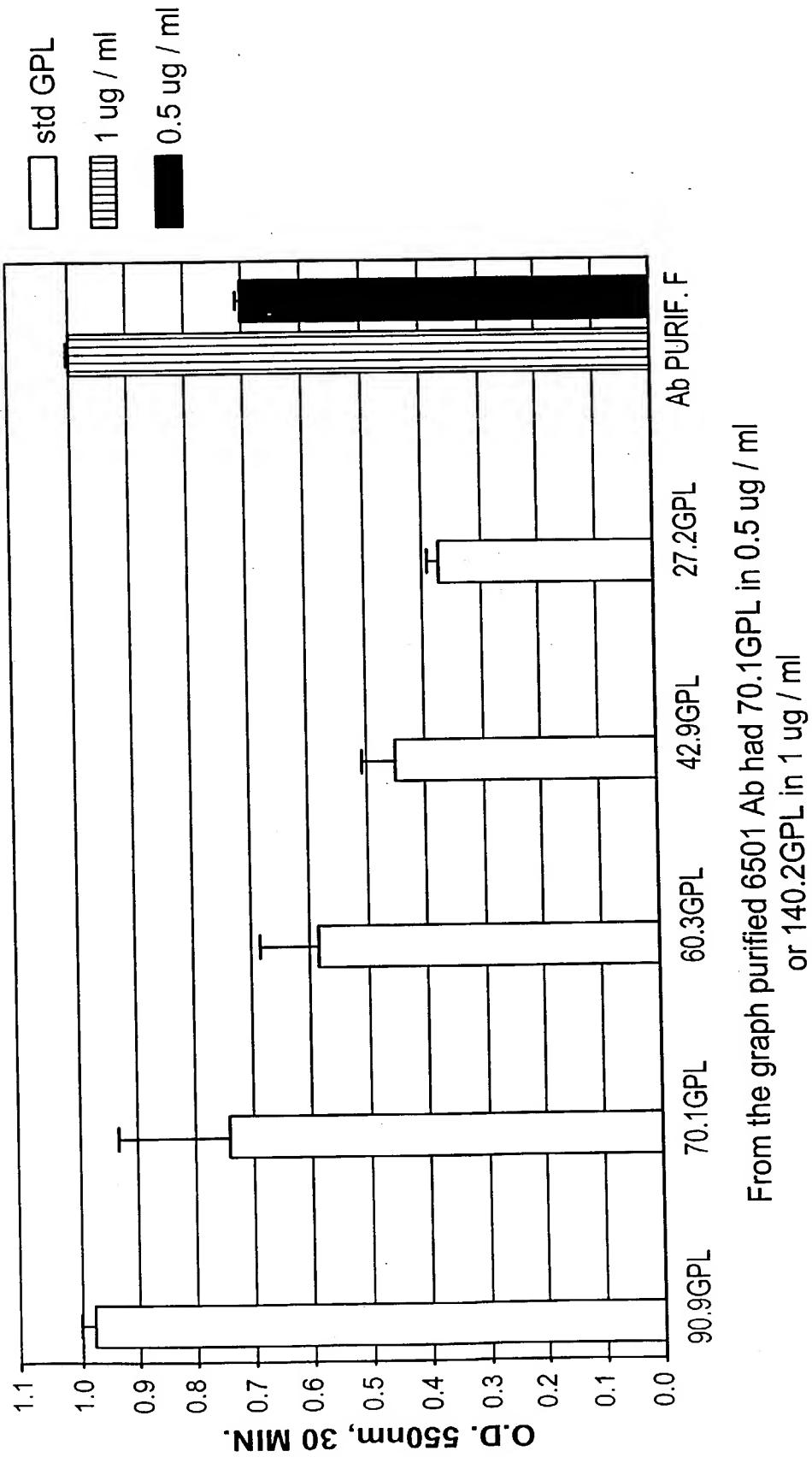


FIG. 7

O I P E
APR 24 2003
PATENT & TRADEMARK OFFICE
Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 8 of 32

8/32

2nd. ROUND 3rd. ROUND 4th. ROUND 5th. ROUND C1C2

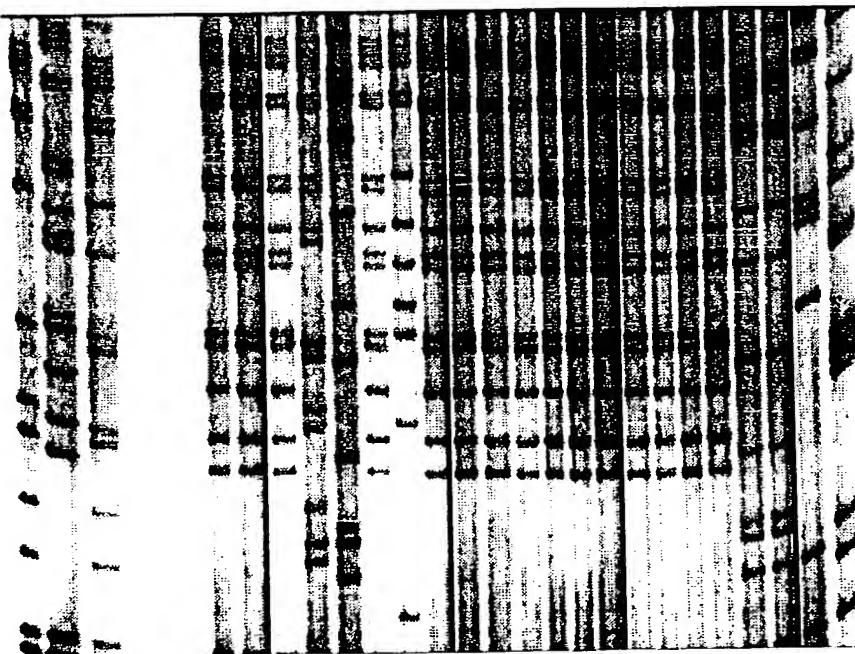


FIG. 8



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 9 of 32

9/32

α

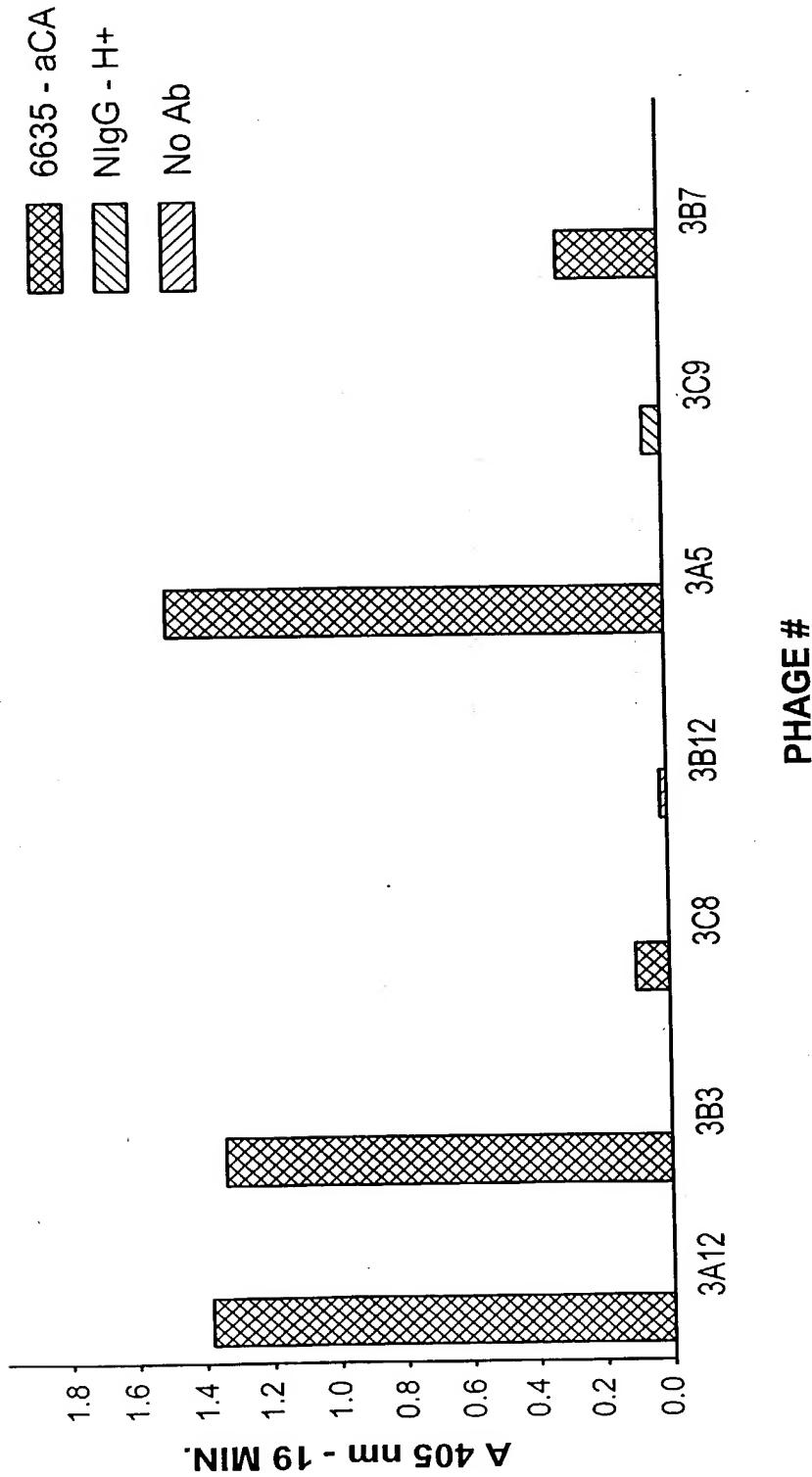


FIG. 9



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED HEMATOLOGIES

Inventor: Edward J. VICTORIA, et al.

Application No.: 10/044,844

Docket No.: 252312006103

Sheet 10 of 32

10/32

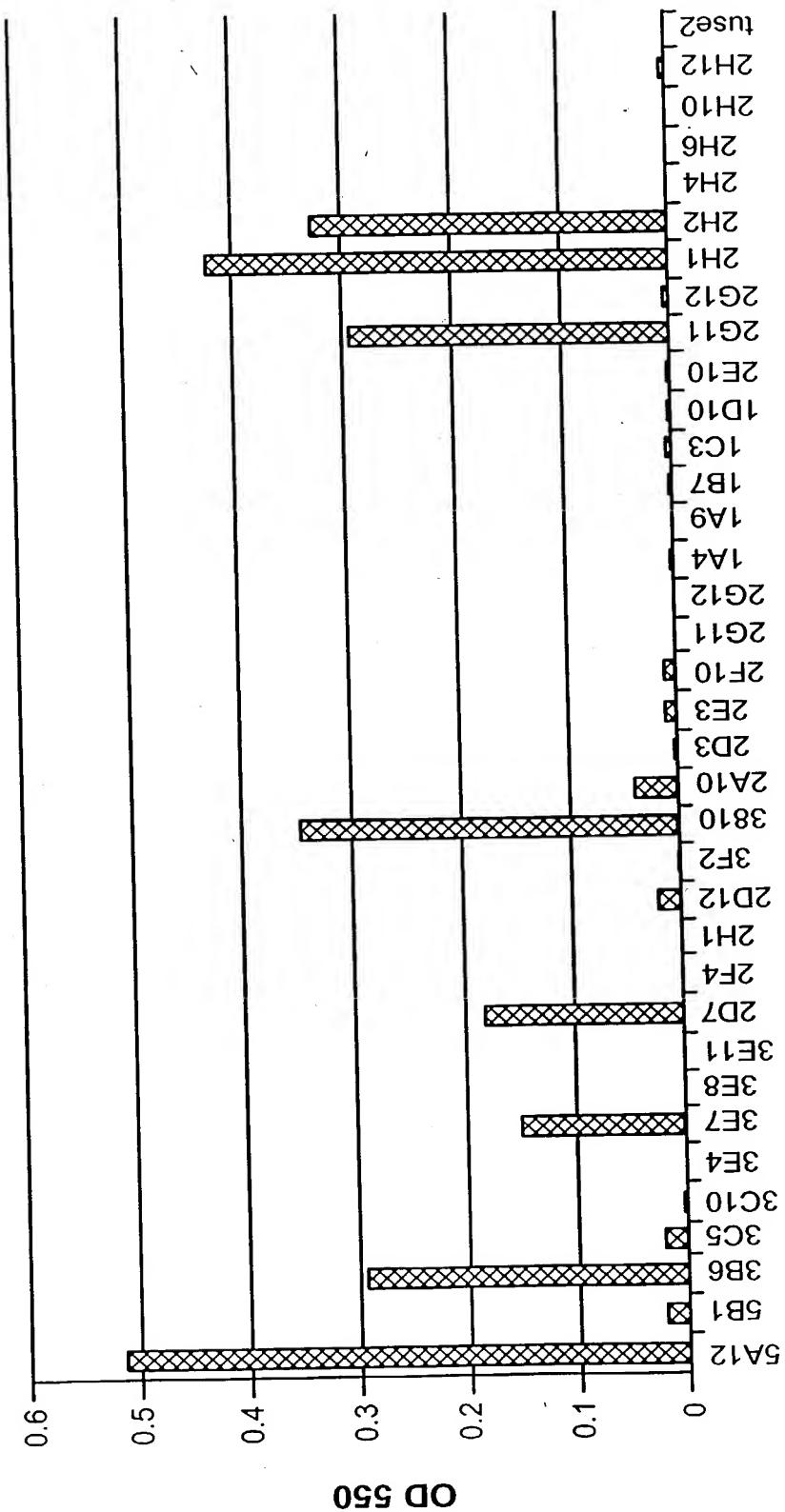


FIG. 10



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
 Inventor: Edward J. VICTORIA, et al.
 Application No.: 10/044,844
 Docket No.: 252312006103
 Sheet 11 of 32

11/32

**Inhibition of (3B10)4/6501 Derived by 6501
Derived Peptide Monomer with 400 Diluted
Ser.6501**

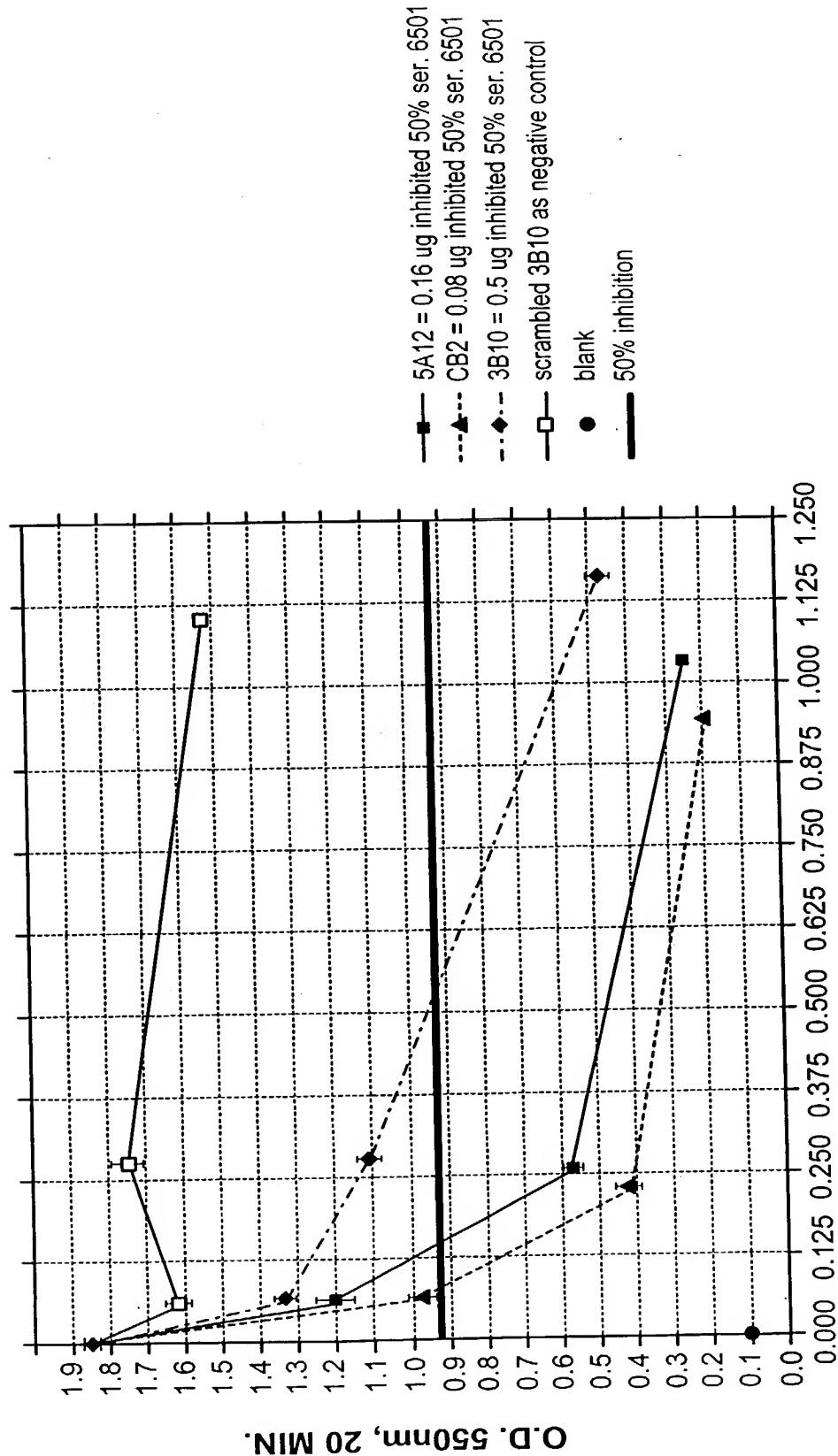


FIG. 11
μg PEPTIDE / WELL

O P E
APR 24 2003
U S P T O
P A T E N T & T R A D E M A R K O F F I C E

Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOPHYSIOLOGIES
 Inventor: Edward J. VICTORIA, et al.
 Application No.: 10/044,844
 Docket No.: 252312006103

D 4 2 4 0 5

Sheet 12 of 32

12/32

Inhibition of CdI-2.3% Hu Ser.(no IgG) by Modified Peptides 3G3 with 400x Diluted Serum 6501

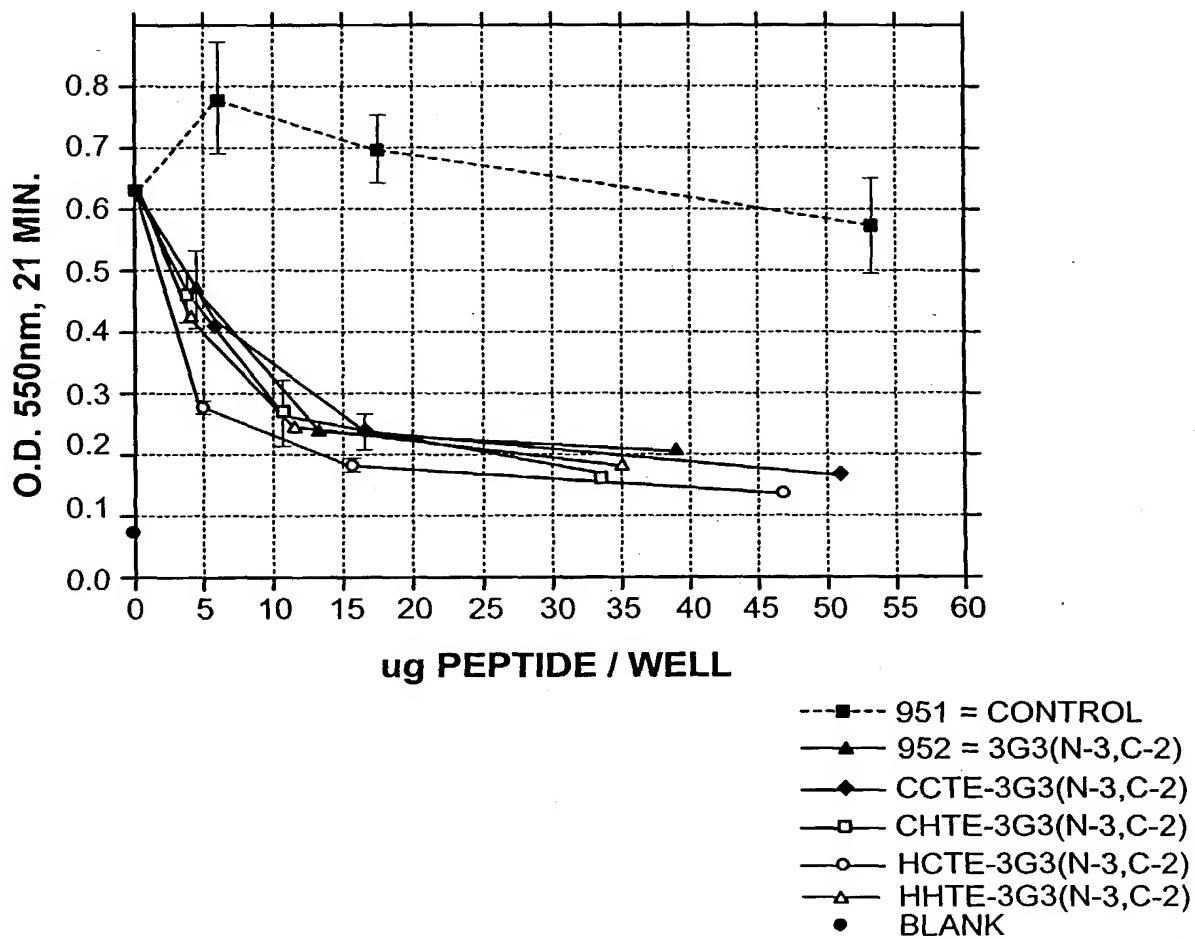


FIG. 12

13/32

Inhibition of (3B10)4/6501 Derived by Truncated or Non-Truncated 3B10 with 400 Diluted Serum 6501

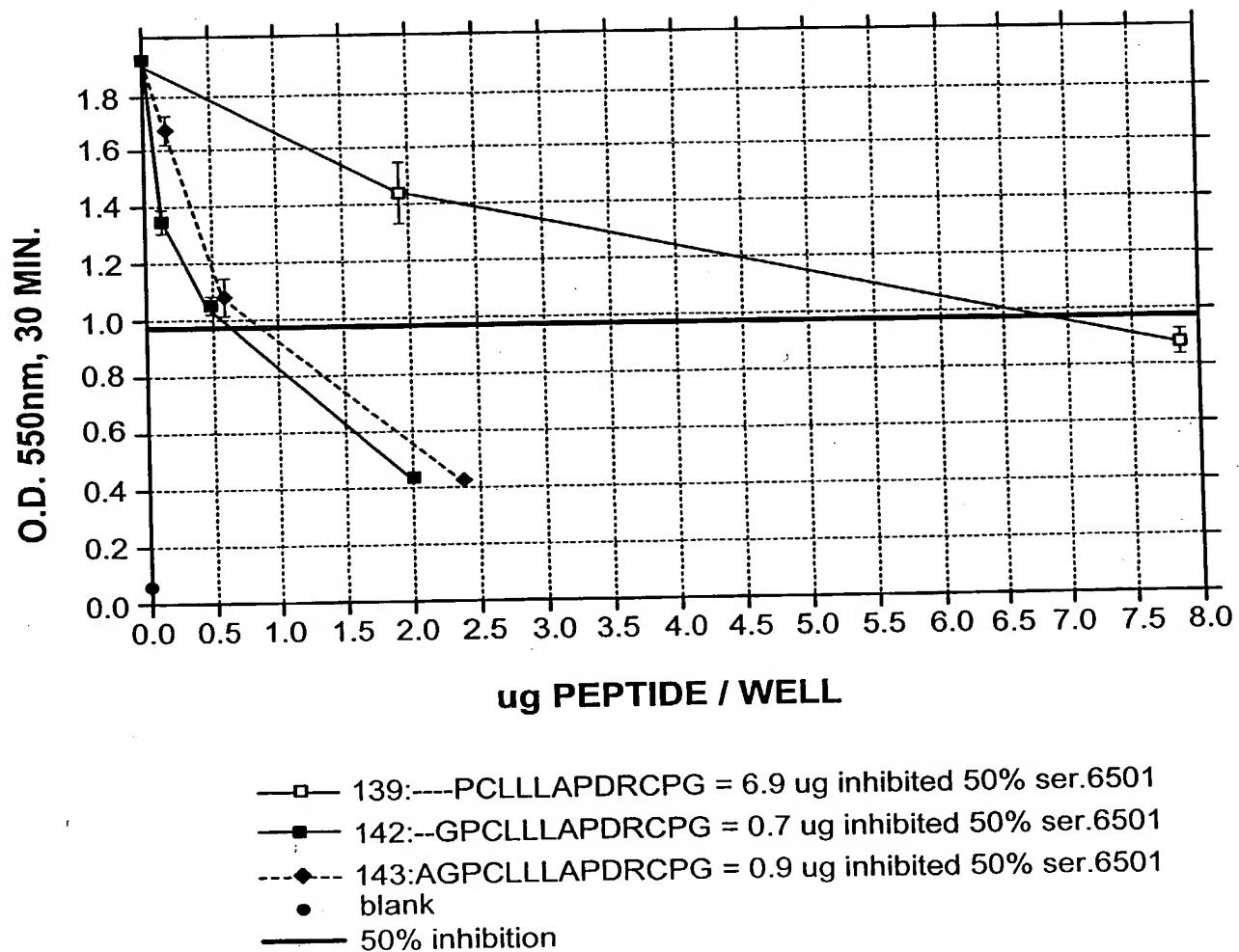


FIG. 13



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PHYSIOLOGIES

Inventor: Edward J. VICTORIÀ, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 14 of 32

14/32

Inhibition of (3B10)4/6501 Derived by Alpha MeP 3B10 Monomer with 400 Diluted Serum 6501

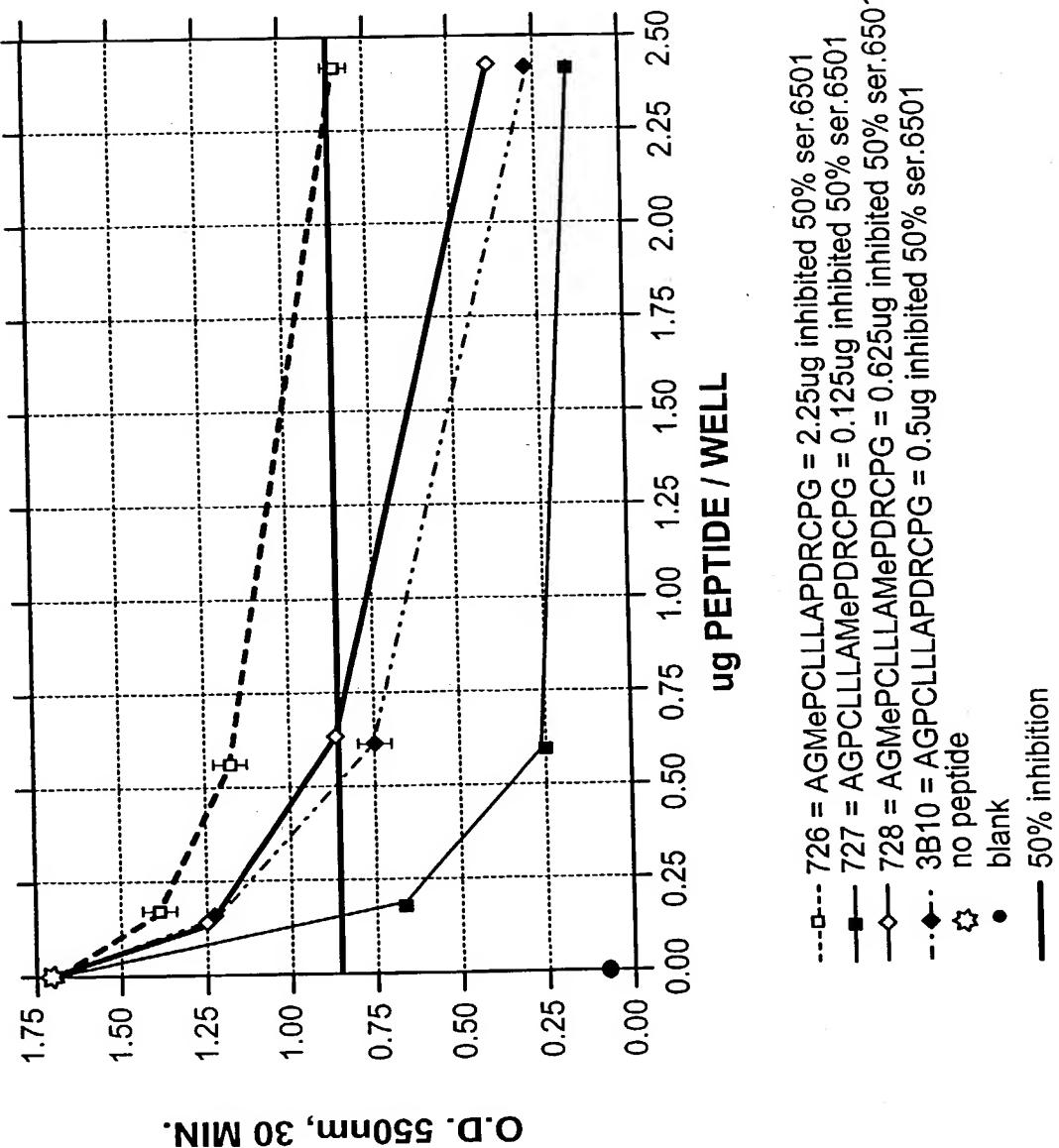


FIG. 14



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREFOR AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 15 of 32

15/32

**Cross reactivity of peptide LJP 688 with aff-ACA
Cardiolipin/β2-GPI-coated plates**

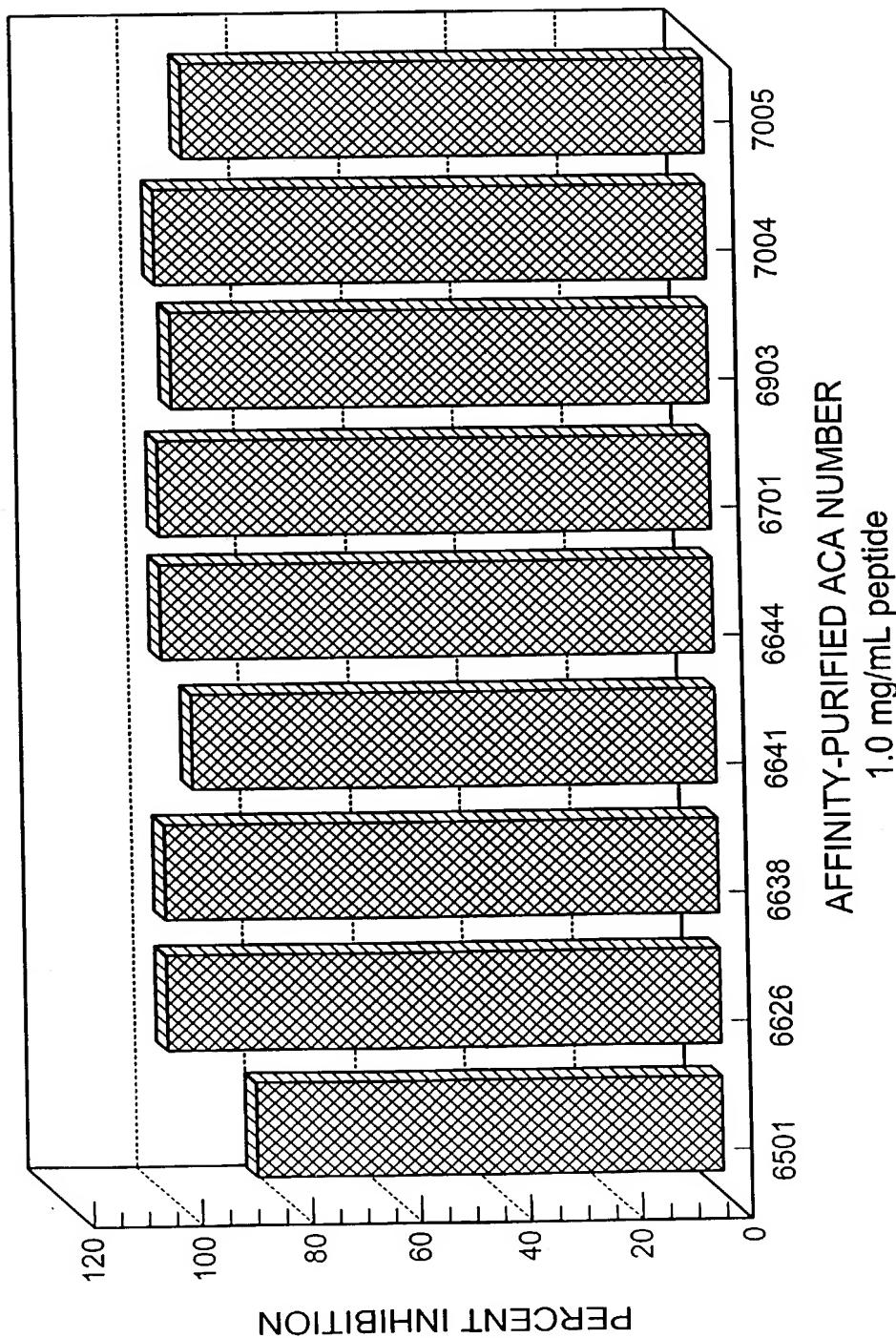


FIG. 15



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 16 of 32

16/32

LJP 685-MTU-DABA-PEG (COMPOUND 36)

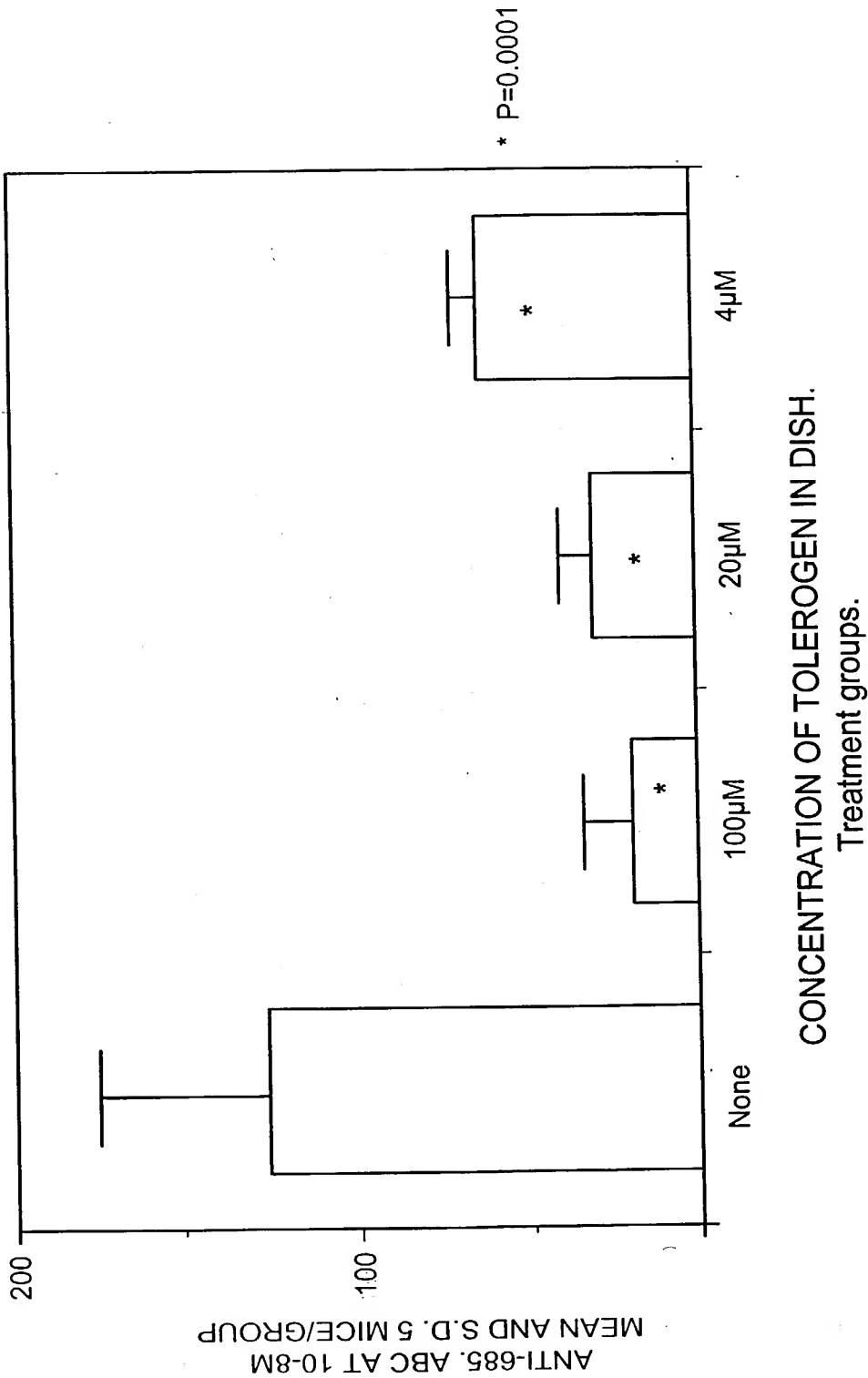


FIG. 16



LJP 685-ATU-MTU-AHAB-TEG (COMPOUND 35)

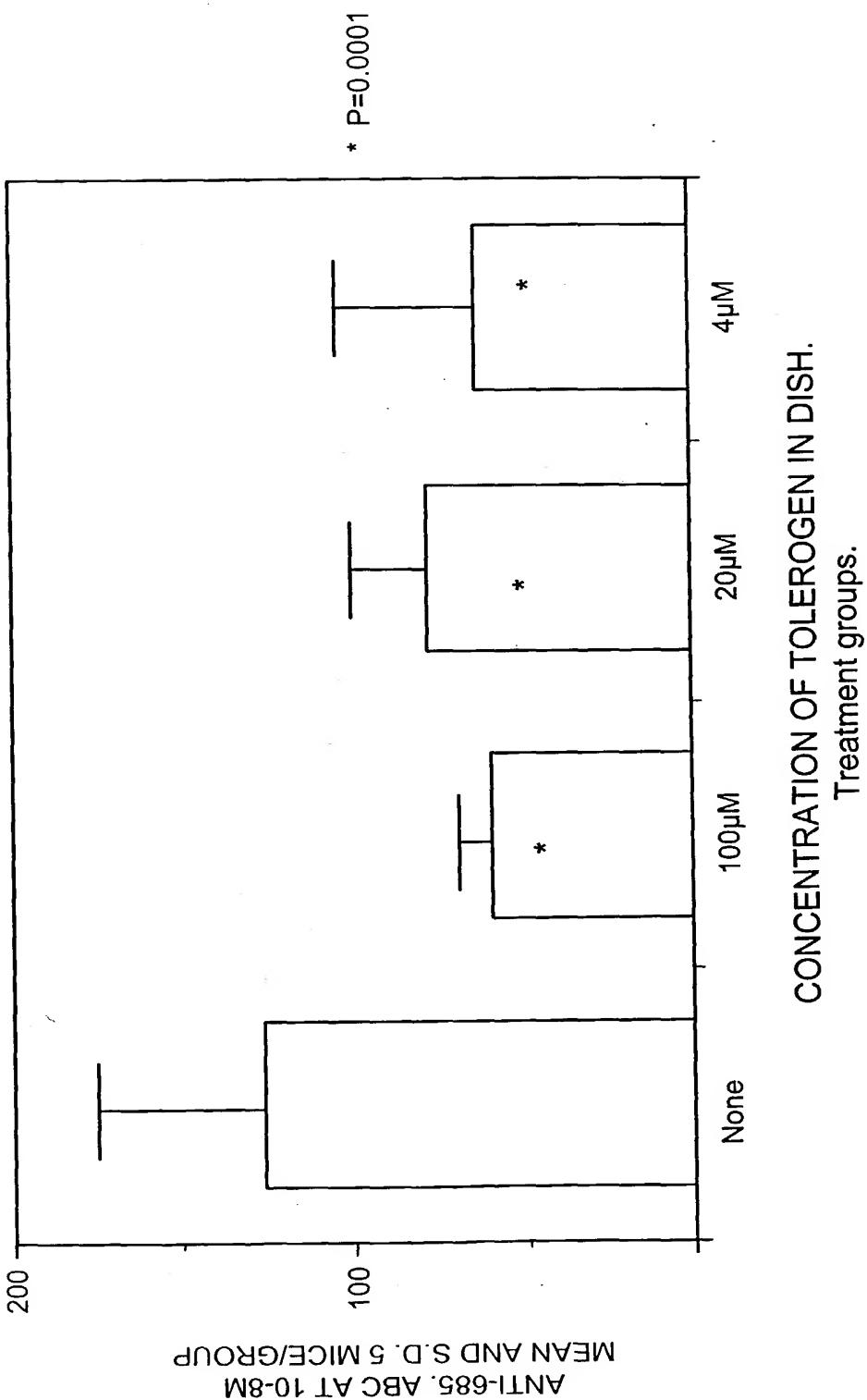


FIG. 17

O I P E
APR 24 2003
PATENT & TRADEMARK OFFICE
Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 18 of 32

18/32

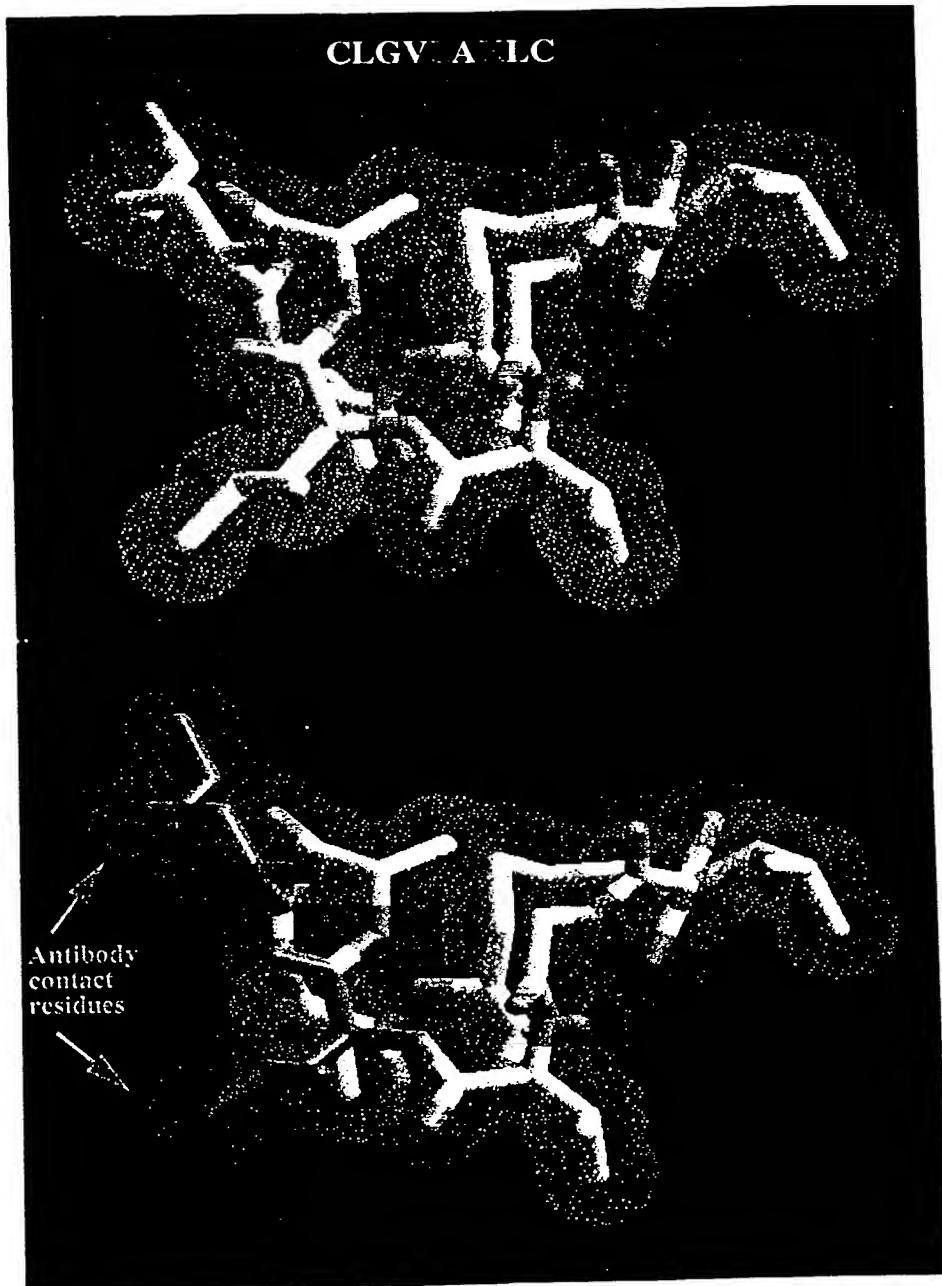


FIG. 18



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
TOXICOLOGIES

Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 19 of 32

19/32

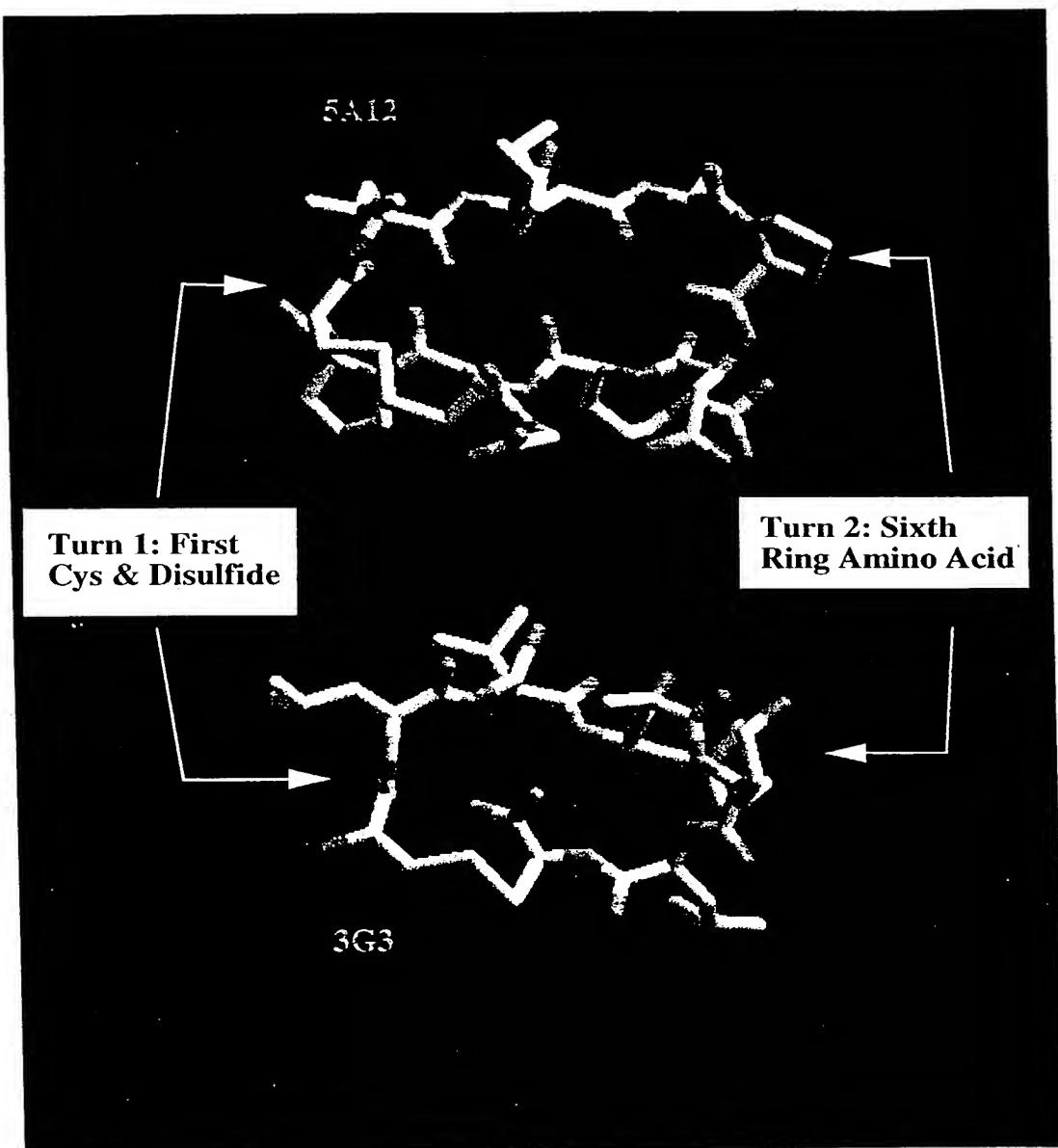


FIG. 19

20/32

Amino or other positively charged group

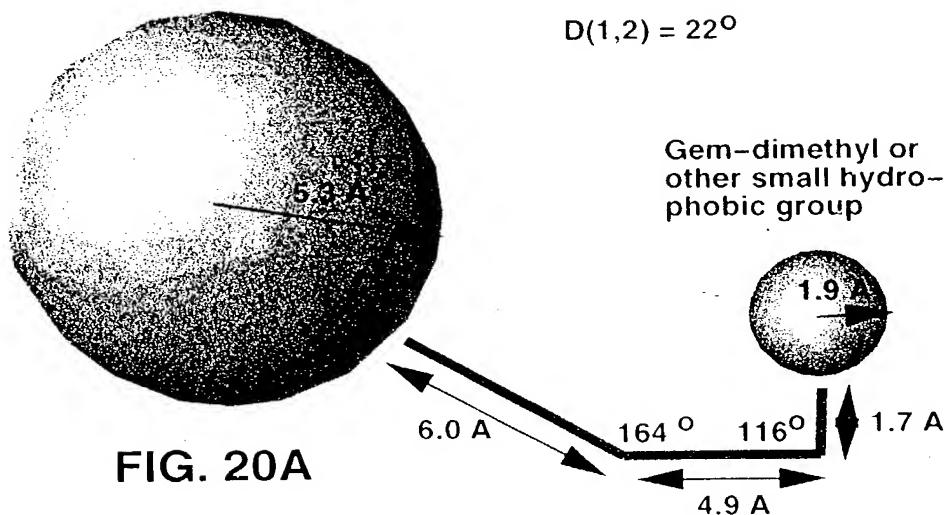


FIG. 20A

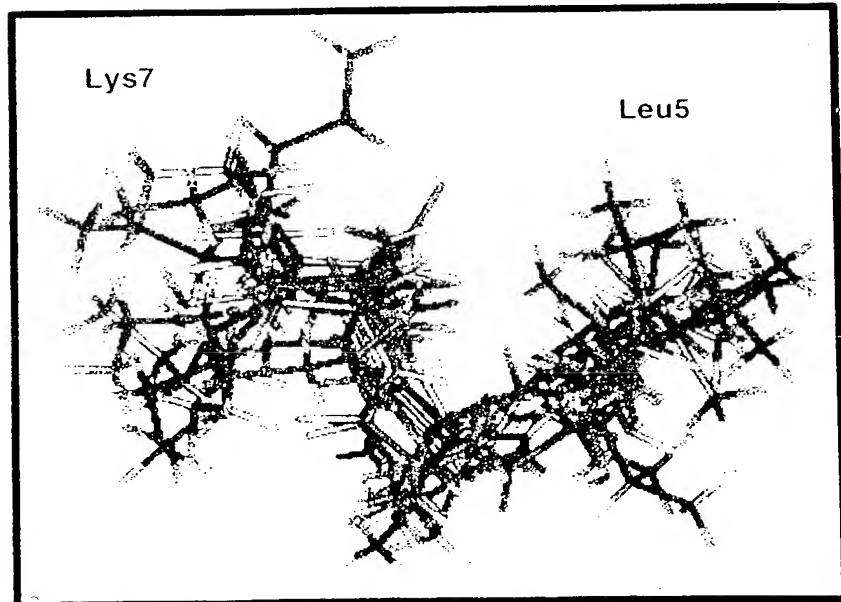


FIG. 20B



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL, ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 21 of 32

21/32

Inhibition of β_2 GP-1 by 6501-Derived Peptides with 350x Diluted Serum 6501

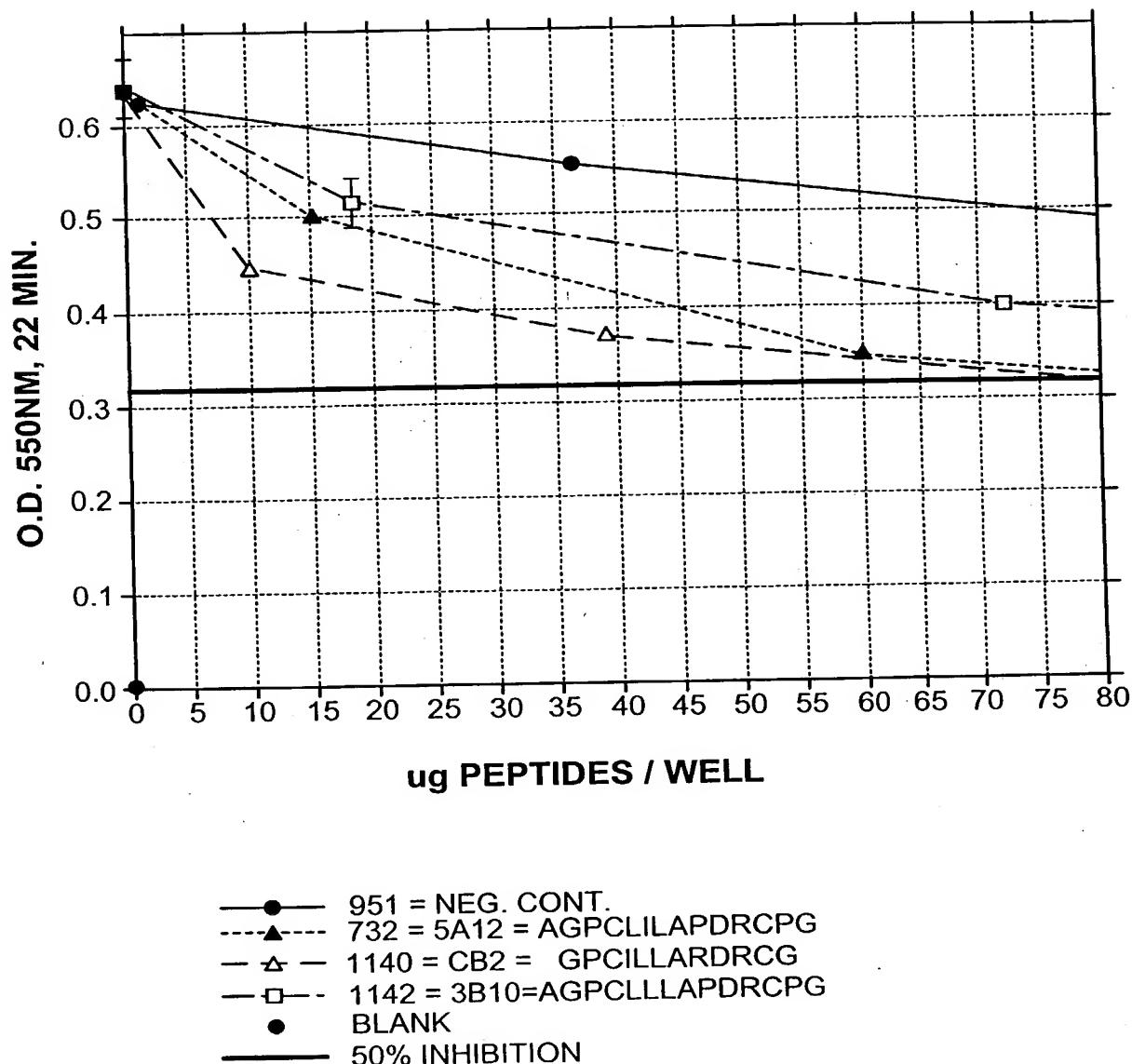


FIG. 21

22/32

**6701 Titration of CB2*-F:
(FITC)-GPCILLARDRCG-CO₂**

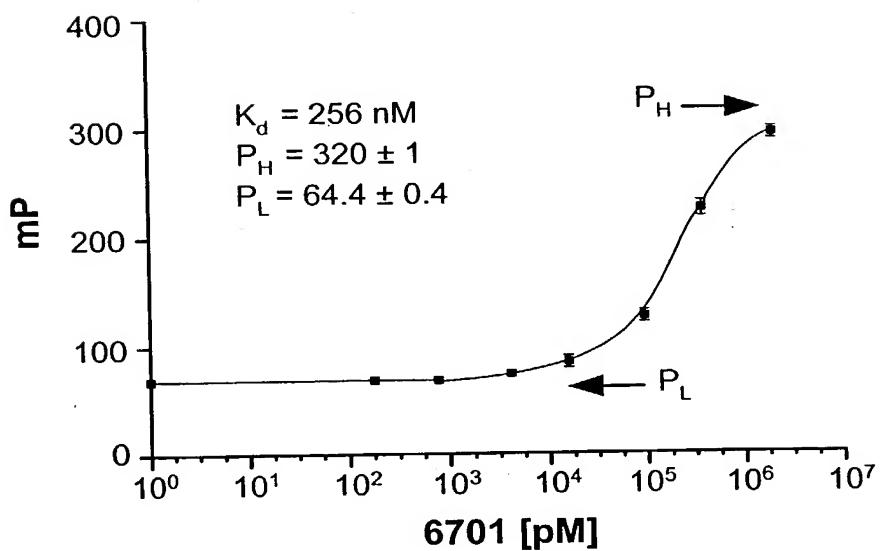


FIG. 22

O I P E
APR 24 2003
PATENT & TRADEMARK OFFICE
Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 23 of 32

23/32

**6501 Titration of CB2*-F:
(FITC)-GPCILLARDRCG-CO₂**

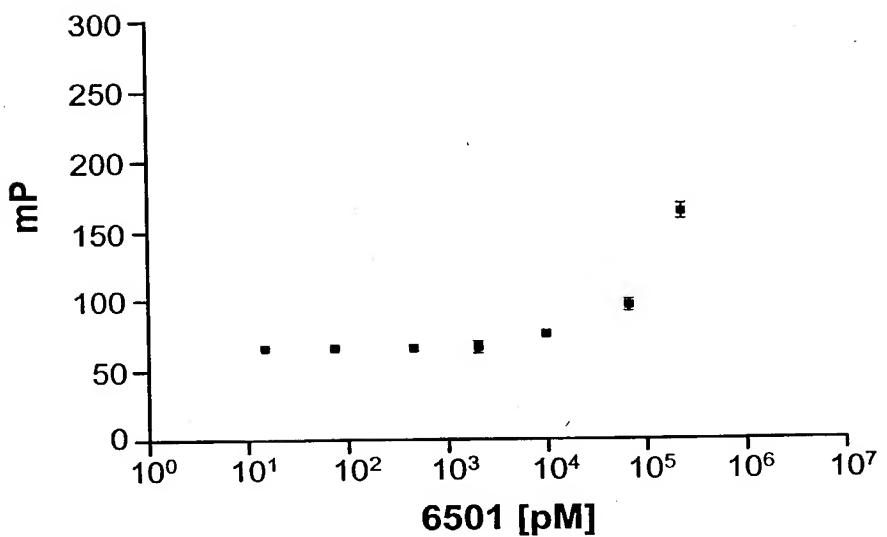


FIG. 23



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

042403

Sheet 24 of 32

24/32

**6501 Titration of CB2*-F:
(FITC)-GPCILLARDRCG-CO₂**

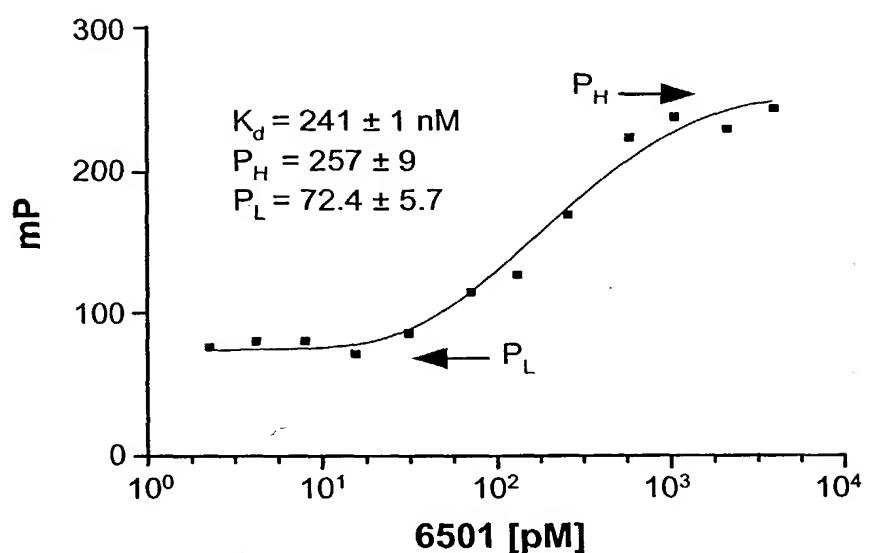


FIG. 24

25/32

**Displacement of CB2*-F from
6701 using 1.04 eq. of CB2*:
GPCILLARDRCG-CO₂⁻**

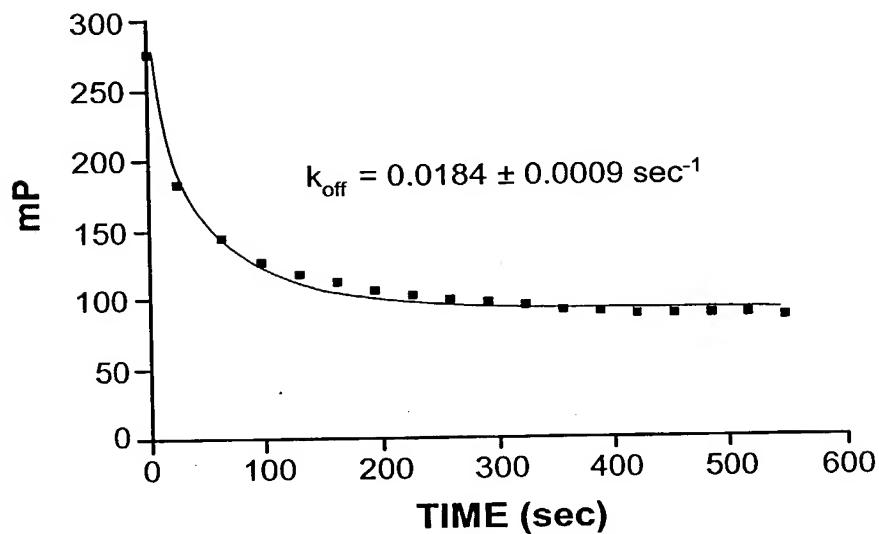


FIG. 25



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
TOXICOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 26 of 32

26/32

**CB2* Titration of CB2*-F/6701:
CB2*: GPCILLARDRCG-CO₂**

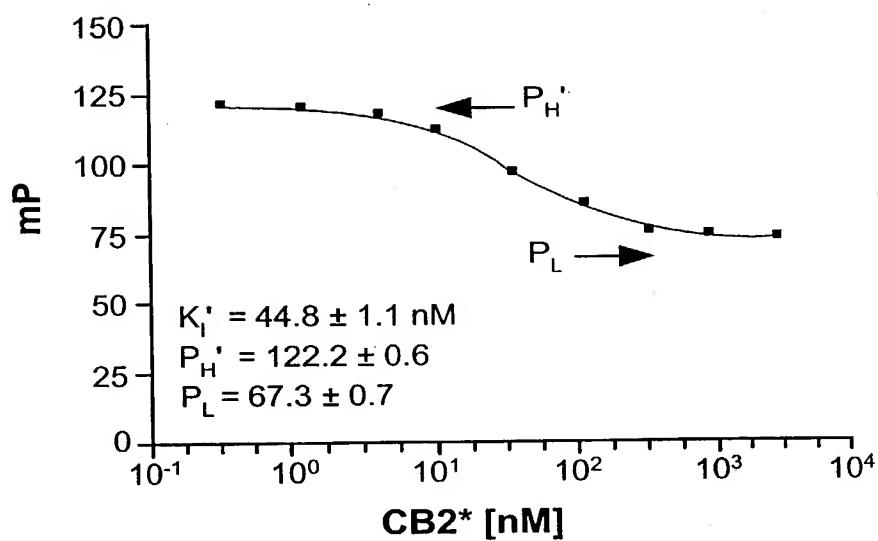


FIG. 26



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 27 of 32

27/32

**3B10 Titration of CB2*-F/6701:
3B10: AGPCLLLAPDRCPG-CO₂**

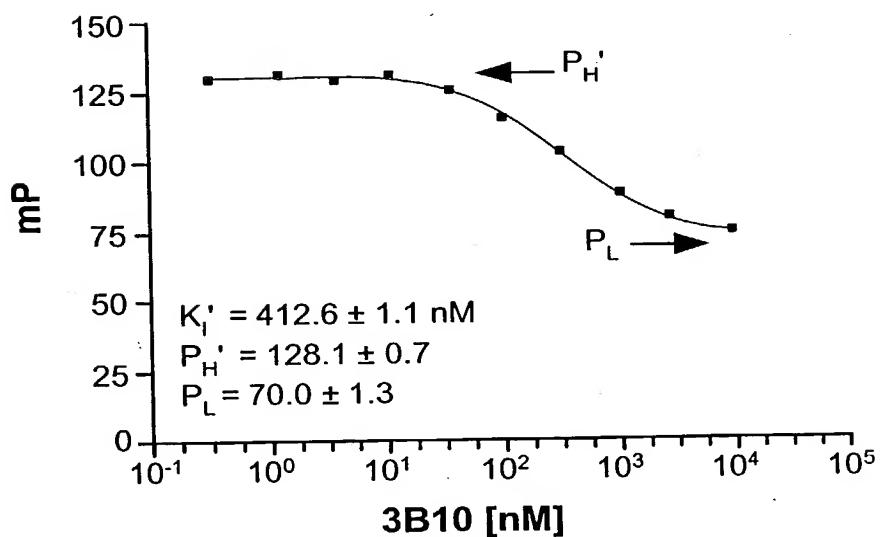


FIG. 27



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
MÉTHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 28 of 32

28/32

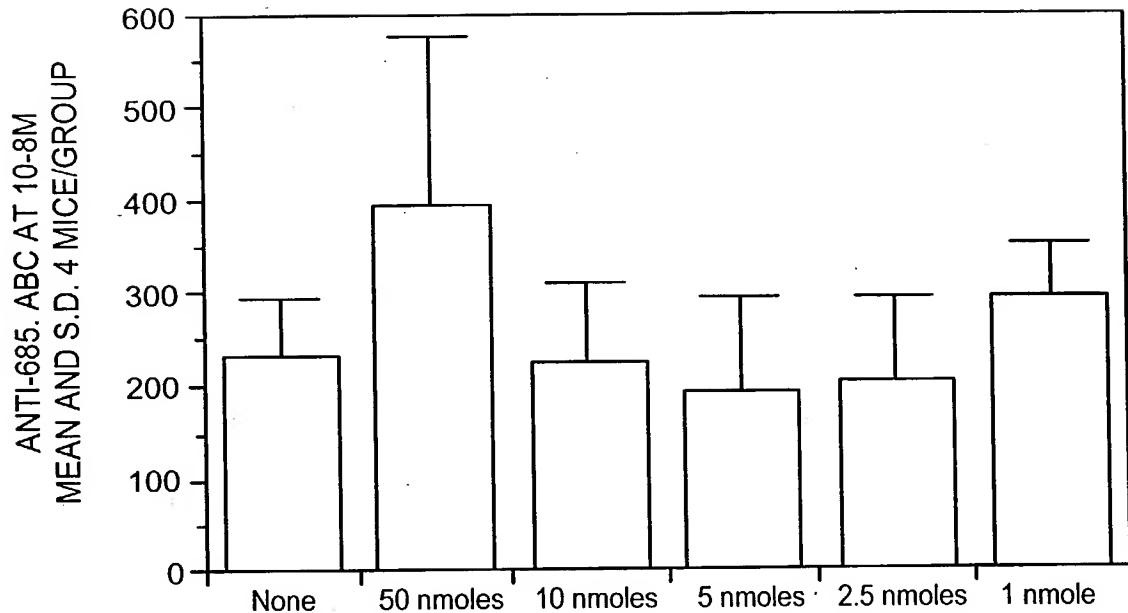


FIG. 28



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATHOLOGIES

Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 29 of 32

29/32

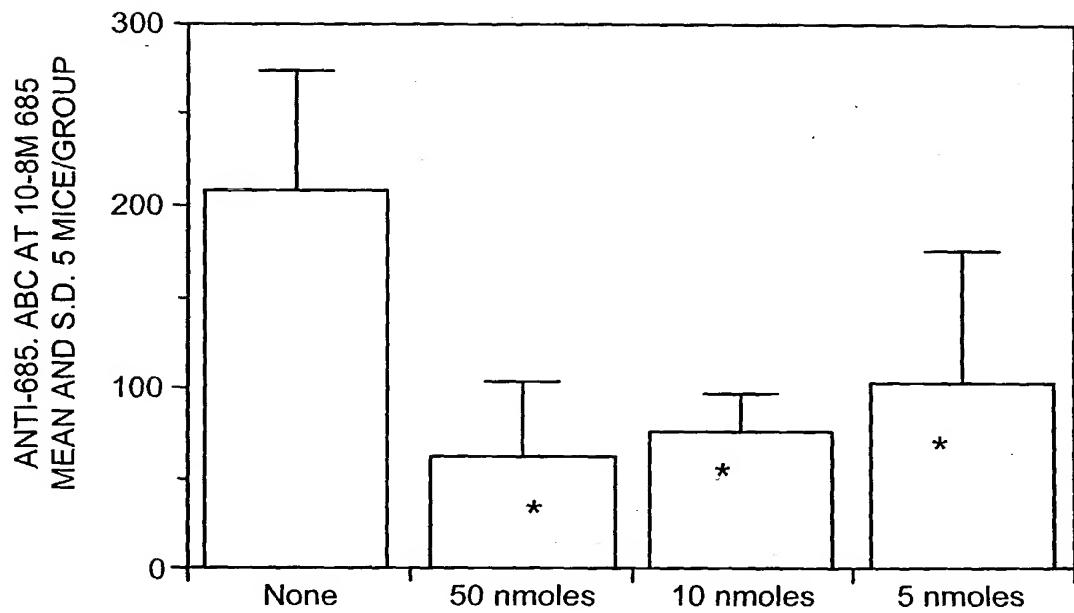


FIG. 29

O P E
APR 24 2003
U.S. PATENT & TRADEMARK OFFICE

Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND
METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED
PATIENT LOGIES
Inventor: Edward J. VICTÓRIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 30 of 32

30/32

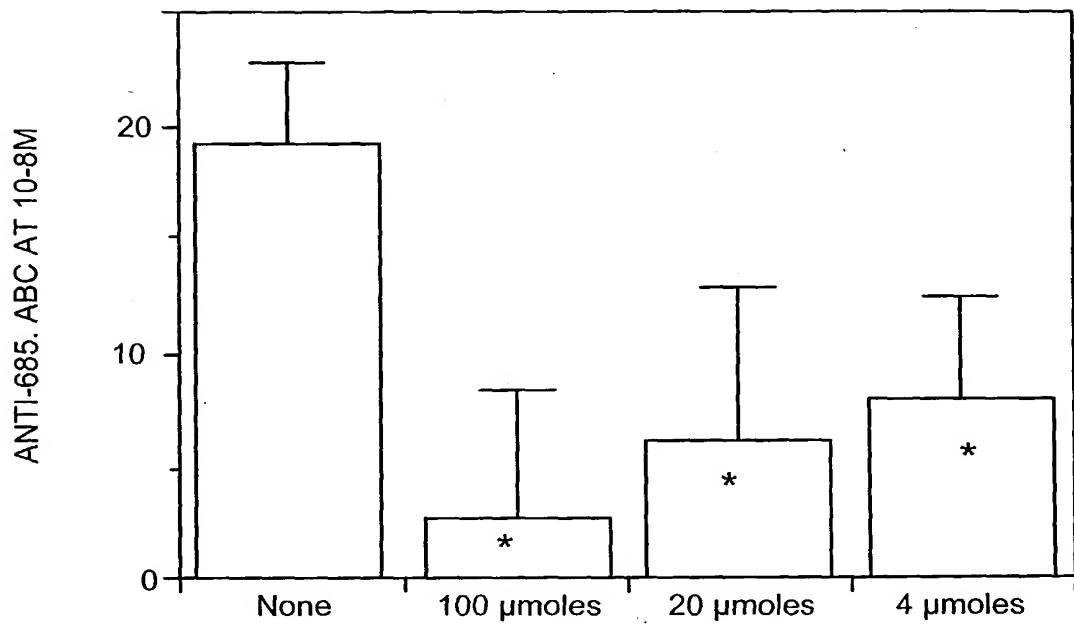


FIG. 30

O P E R A T I O N
APR 24 2003
PATENT & TRADEMARK OFFICE U.S.A.

Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
Inventor: Edward J. VICTORIA, et al.
Application No.: 10/044,844
Docket No.: 252312006103

Sheet 31 of 32

31/32

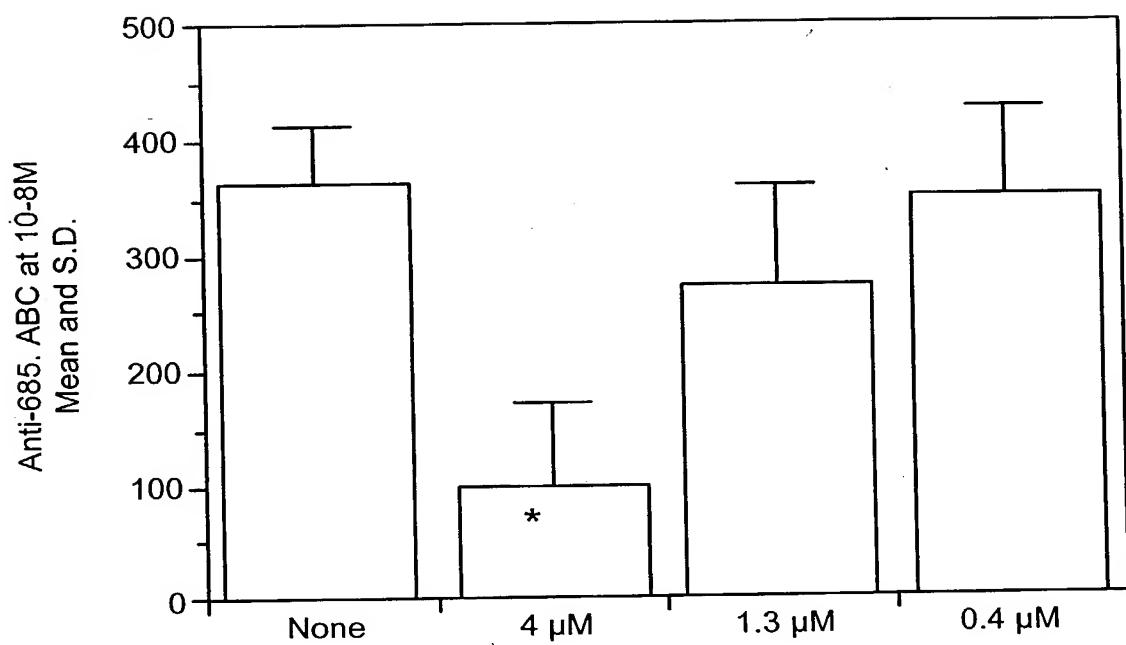


FIG. 31



Title: APL IMMUNOREACTIVE PEPTIDES, CONJUGATES THEREOF AND METHODS OF TREATMENT FOR APL ANTIBODY-MEDIATED PATHOLOGIES
 Inventor: Edward J. VICTORIA, et al.
 Application No.: 10/044,844
 Docket No.: 252312006103

Sheet 32 of 32

32/32

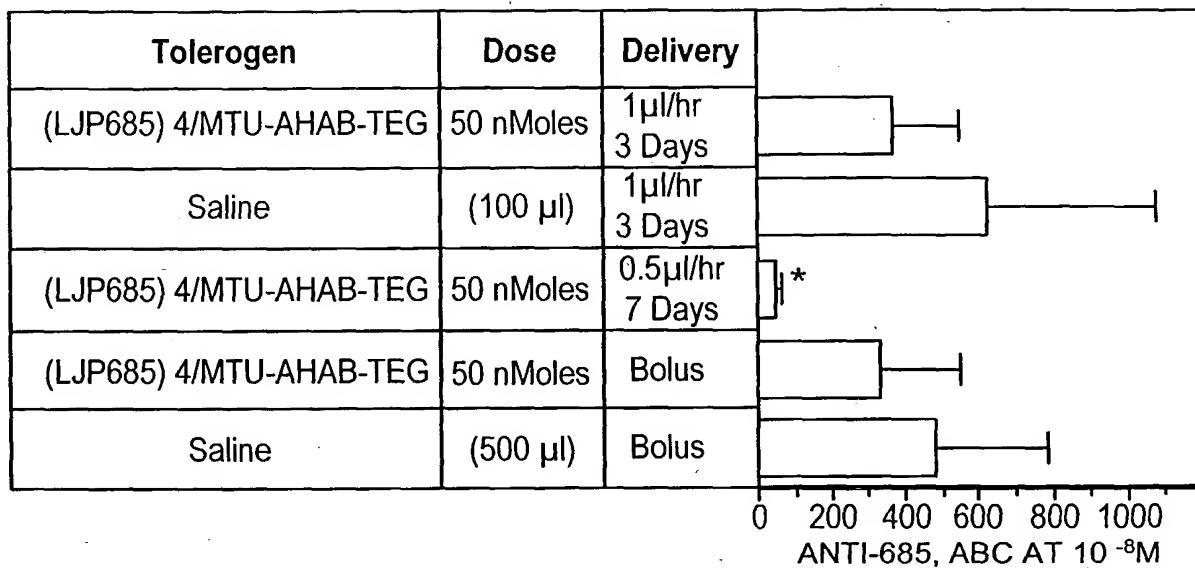


FIG. 32